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Abstract

Political ecology, initially conceived to better understand the power relations implicit in management and distribution of natural resources in the developing world, came "home" to the American West in the 1990s and 2000s. This groundswell of research did much to problematize socio-environmental conflicts in the region, long typified by tensions over land and resources, identity and belonging, autonomy and authority. Since first touching down in the West, however, the "big tent" of political ecology has only grown bigger, incorporating new perspectives, epistemologies, and ontologies. At the same time, the nexus of environment and society is perhaps even more salient today, amid a regional conjuncture of populist revolt, climate change, and rapid political economic transformation. Here we reflect on three longstanding regional concerns – energy development, wolf reintroduction, and participatory governance – leveraging the pluralism of contemporary political ecology to better understand their contemporary incarnations. In so doing, we highlight the need to bring together insights from both "traditional" approaches and newer directions to better understand and engage contemporary challenges, with their heightened stakes and complexity. Such an approach demonstrates what we might learn about global processes in this place, as well as what insights regional praxis (often woefully provincial) might gain from elsewhere – new ways of seeing and doing political ecology. Our goal is to generate discussion among and between political ecologists and regional critical scholars, initiating new collaborative engagements that might serve the next wave of political ecology in the 21st century American West.

Keywords

Environmental conflict; environmental governance; experimentation; human-wildlife conflict; New West; unconventional extractivism

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1. Political ecology in the west: The next generation?

Typified by tensions over land and resources, identity and belonging, autonomy and authority, the American West has long been theater to novel and dramatic couplings of the political and ecological. The challenges of theorizing and living in this region inspired a groundswell of research from the field of political ecology in the 1990s and early 2000s (e.g. McCarthy, 2002; Walker, 2003). Today, the dynamics that inspired political ecology to make the "intellectual journey home" persist (Fortmann, 1996, 545), but with heightened stakes and complexity. Unconventional forms of energy development eat away at agricultural land and wildlife habitat, exacerbating the longstanding challenges of multiple use in patchwork landscapes. Unprecedented wildfire seasons and flooding – driven in part by climate change – threaten public health, lives, and property as well as governance models confounded by transboundary ecological processes. Unexpected outcry – from the armed takeover of the Malheur Wildlife Refuge in 2016 to protests at Portland ICE headquarters in 2018 – highlight the perennial question of who and what belongs in the West, as well as contemporary articulations with populist revolt and regional anxieties over economic and environmental futures.

Since first touching down in the region, political ecology itself has evolved and expanded from its historical materialist roots to incorporate insights from multiple genealogies. Poststructural insights from feminist and postcolonial scholarship have troubled the nature and production of knowledge (e.g. Whatmore, 2002), but so too has engagement with physical science through STS and, more recently, critical physical geography (Lave et al., 2014). As emerging scholars (aided here by our more senior counterparts), we find ourselves drawing insight from both the long arc of critical human-environment scholarship and the theoretical frontiers of political ecology and its "fellow travelers." We argue here for both the enduring utility and potential contributions of political ecology's growing "big tent" for engaging this region – now an important stage for national- and international-level debates and whose puzzling questions are more urgent than ever (cf. White, 1997; Schroeder and St, 2006; Robbins et al., 2009).

Below, we revisit three longstanding regional issues and demonstrate the value of combining classic insights with the expanded toolkit of political ecology today – showing what the West has to gain from these insights, and how the region provides fertile empirical fertile ground for generating theory through bringing together diverse lineages. More broadly, we hope to inspire others to join us: in revisiting and revitalizing a previous generation's insights, connecting up contemporary and emerging work, and relaunching a collective academic effort around critical scholarship in a place so many of us call home.

2. Unconventional extractivism, uneven re/development

Despite energy development's long history in the American West, the recent surge of unconventional oil and natural gas extraction has been both dramatic and unexpected, resulting from a combination of high commodity prices, energy geopolitics, and the technological pairing of horizontal drilling with hydraulic fracturing (a.k.a. "fracking"). Similarly unexpected has been the related deepening and broadening of the West's extractive terrain, including so-called "impact geographies" ranging from remote boomtowns and tribal sovereign lands to oilfield borderlands and petro-suburbs (Haggerty et al., 2018). While extraction has historically been associated with geographical frontiers and core-periphery relations, the proliferation of new patterns requires reconsideration of the spatial relations of resource geographies (Lave and Lutz, 2014). Applying a political ecology lens to processes of unconventional extraction helps us understand evolving energy geographies, their political economic drivers, and their socio-ecologically uneven impacts in the West and beyond (Bebbington, 2012).

Colorado's Front Range is home to many of the Western municipalities bewildered by the recent meeting of fossil fuel extraction and rapidly sprawling (sub)urban environs. The "Lords of Yesterday" perhaps never fathomed such overlapping land uses (Wilkinson, 1992), or that energy companies would use western suburbs to test a new business model: the stitching together of thousands of small mineral leases in order to drill within residential spaces historically distanced from oil production (Kroepsch, 2018). Advocates argue that the Denver-Julesburg Basin's hydrocarbon-laden geologic deposits predated surface developments, while opponents critique the mixing of industrial hazards with homes, schools, and vulnerable populations (Kroepsch, 2016). The primary policy response in Colorado has been to (re)establish a more customary setback distance via agency rulemaking, legislation, and ballot referendums. Efforts to govern contentious extractive activities through simple spatial strategies, however, leave unresolved deeper conflicts over power, jurisdiction, and procedural fairness.

Critical scholarship has long sought to trouble the urban-rural binary (e.g. Cronon, 1992), but the new range of energy impact geographies and spatial politics – across urban, rural, and sub- or exurban in-between zones – necessitates reconsideration of co-constitution and interconnectivity. Combining insights – from assemblage and network theories (Haarstad and Wanvik, 2017), new materialism (Bakker and Bridge, 2006), and critical physical geography (Lave et al., 2014), together with tools from the political economic geography of resource extraction (Huber, 2009) – yields an array of new research directions focusing on the uneven patterns of (sub)surface development. These new directions acknowledge how human interventions transgress traditional boundaries, linking distant places and people and driving experiments both above and below the ground. Such an approach suggests thinking about space vertically as well as relationally, with a political ecological – or, perhaps, political geological (Bobbette and Donovan, 2019) – engagement of the subsurface.

3. Contested belonging and the wolf question

Contestation surrounding the reintroduction and return of gray wolves to the Northern Rocky Mountains since the mid-1990s epitomizes the material and symbolic challenges of multiple-use governance. Tensions between rewilding and heritage landscapes – questions of who and what belongs, and related narratives of identity and place – rest on dubious claims of prior occupation, appropriate baselines, and unresolved debates over land use and environmental impacts in the region (cf. Soulé and Noss, 1998; Drenthen, 2018). Although the wolf question is often conceptualized as part of a contested transition from "Old" to "New West" (Nie, 2003; Clark et al., 2005), this fails to account for patterns and persistence of conflict in the more than two decades since reintroduction. Political ecology's strength in challenging problematic narratives and disentangling complex histories can help lay the groundwork for alternative conceptualizations of belonging and socioecological futures (Huntsinger, 2016).

Blaine County, Idaho, between the Sawtooth Mountains and Craters of the Moon, is an important site for cultural and legal battles over wildlife, livestock, and public lands. Decades-long efforts around wolf coexistence and collaborative range management share space with litigious anti-grazing environmental NGOs, making the Wood River Valley an important crucible of "New West" tensions (cf. Rowley, 1985; Walker, 2018). Unpacking this history complicates an "old-timers" versus "newcomers" framing, highlighting instead layered and at times oppositional land uses and claims to territory. From indigenous expulsion through extractive industry booms and the rise of a resort economy around Sun Valley and the Sawtooth National Recreation Area, Blaine County today displays dramatic contrasts and juxtapositions of population, development, and politics: immense wealth and rural poverty, foodie culture and small-town food deserts, agriculturalists alongside

amenity migrants. Restoration of wolves to these landscapes has only heightened these tensions, bringing with them human ideas of wilderness and remaking relations of land use and access.

Wolves remain targets of political ire and violence throughout the West, as perhaps the quintessential instance of human-wildlife conflict. Bringing insights from critical environmental history and cultural landscape studies together with more recent work in more-than-human geographies can complicate ideas of restoration as always partial, always political claims to (and productions of) space (Cronon, 1992, 1995; Whatmore, 2002; Margulies and Karanth, 2018). We might better understand both wolf conflict and broader tensions of multiple use through the metaphor of landscape as palimpsest (Meinig, 1979, 6), in which historical patterns and claims are layered but never fully erased. Rather than restoration of an imagined prior state (ecological or cultural), such a framing emphasizes ongoing and contested coexistence between social groups, species, and processes (Hobbs et al., 2014). Amid the novel ecosystems of the Anthropocene, attending to the continuous socio-ecological co-production of landscape, and the political quality of coexistence in these "wild experiments" gives political ecologists new tools to engage in ongoing debates over what coexistence and reconciliation might require (Rosenzweig, 2003; Robbins and Moore, 2013; Lorimer and Driessen, 2013).

4. Experimentation and participatory governance

Throughout the West, the turn toward "participation" – whether via public comment, multi-stakeholder decision-making, or community-based resource management – has emerged as a means to alleviate longstanding tensions across the patchwork landscape of public and private property (Hays, 1959; Conley and Moote, 2003; Charnley et al., 2014). With water, perhaps the region's most infamous transboundary resource, the participatory turn is often assumed to bring about positive social and environmental outcomes. Success stories like the planned Klamath Dam removal show how participatory environmental governance can engender buy-in from diverse stakeholders and coordination between government agencies (Gosnell and Kelly, 2010). Yet participation is far from a cure-all, and political ecology highlights how resource management becomes limited by power dynamics implicit in the production of knowledge (Walker and Hurley, 2004; Selfa and Endter-Wada, 2008).

Miles City, Montana, situated at the confluence of the Tongue and Yellowstone Rivers, exists almost entirely within a floodplain. In order to protect the city from flooding, a levee system was built along both rivers between the 1930s and 1970s. When the United States Army Corps of Engineers (USACE) completed an updated flood model in 2007, they found significant flaws in this historic levee system. After the Federal Emergency Management Agency (FEMA) expanded Miles City's flood insurance rate map based on the updated model, however, many community members reacted strongly. Locals contested the requirement to pay insurance premiums as well as the legitimacy of federally-constructed flood models, which contradicted historical knowledge of the riverscape. In order to fulfill participatory legal requirements, FEMA and USACE initiated a series of public meetings to ostensibly provide a venue for community members to offer critical feedback. However, agency-led dialogue largely failed to engender community buy-in and exacerbated perceived differences between expert models and local knowledge.

Tensions between these expert and local knowledges and the stymying of stakeholder engagement comes as no surprise to a critical political ecology perspective. However, given that collaboration remains the dominant paradigm for resource management conflicts despite identified limitations, what contributions might political ecology make beyond the hatchet of critique (Robbins, 2012)? Recent calls for geographers to adopt more 'experimental' stances offer one way

forward (Whatmore, 2013; Braun, 2015). In an experimental political ecology approach, the process of knowledge production becomes an opening rather than an endpoint. What emerges is an experiment in flood risk mapping: instead of a unidirectional process of knowledge distribution, federal agency representatives, local community members, and researchers themselves engage in a process of deliberative knowledge co-creation, deciding together what risk means and how the burdens of flooding should be distributed (cf. Whatmore and Landström, 2011). In a region where outcomes of environmental politics are more than just rhetoric, an experimental political ecology offers the potential to not only support but fundamentally reshape collaborative efforts on the ground. At the same time, experimentation widens political ecologists' own scope of practice by grounding longstanding normative and collaborative aspirations in praxis while maintaining the utility of critique and explanation.

5. Critically engaging landscapes of experimentation

Revisiting some of the region's most enduring environmental conflicts in light of the opportunities presented by political ecology's diverse and syncretic toolkit demonstrates what we might learn about broader processes in this place, as well as what insights regional praxis (often woefully provincial) might gain from elsewhere. Yet these cases – resource economies, wilderness and belonging, local versus expert knowledge – are also quite traditional, for both the region and political ecology generally, and in this way are quite limited. Critical work on the West increasingly points to the untold stories of those left out of dominant historical narratives. This mirrors efforts in political ecology and beyond to attend to historical blindspots within our own fields around race, gender, and power. A political ecology adequate to our current challenges must thus extend its gaze, from classic concerns of land and resources toward emerging phenomena that do not always fit neatly within conventional categories or understandings.

In the simultaneously and unavoidably social, ecological, and always political landscapes of the American West, we find value in political ecology's evolving big tent as a set of tools for both deconstruction and experimentation, for changing how we see and do political ecology. We hope this call galvanizes and brings together ongoing and future scholarship and action: learning from past efforts, revitalizing older conversations with new infusions, and building a cohort around political ecology in the American West. These grounds seem fertile with possibility – help us plant some seeds!

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